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FRIEDRICH KUEFFNER			EXAMINER	
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/538,970  
Filing Date: June 14, 2005  
Appellant(s): HEITZE ET AL.

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Heitze et al.  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 1/11/2010 appealing from the Office action mailed 7/7/2009.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

EP0075448	Mckee, Davy	09-1982
3,510,045	Petros et al	05-1970
3,643,537	Fries, Gunter	02-1972

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 5, 6, and 8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Mckee in view of Petros et al, hereinafter Petros.

Mckee teaches (see Figure 1) a crank shear comprising two pairs of blades (4 and 5) mounted on blade holders (2 and 3), wherein the blade holders (2 and 3) are supported opposite each other in a vertical plane in a pair of eccentric shafts (circular portion found in the middle of both 2 and 3). The eccentric shafts are pivoted on levers (6 and 20) in double joint mechanisms (7 and 21). The blade holders (2 and 3) have many pairs of axially parallel bearing surfaces and radial projections (to the left of blade 4, between blades 4 and 5, and after blade 5; see Figure 1). The upper blade holder (2) has inner facing bearing surfaces within a recess that the blades (4 and 5) are arranged on. The lower blade holder (3) has outer, oppositely directed bearing surfaces of a narrow projection (projecting attachment portion found between the blades on the lower blade holder) oriented towards the recess.

When support levers (6 and 20) are spread to form an approximately 90 degree angle an upper piston rod device (11) attached to the double joint mechanism (7) is fully extended and a lower piston rod device (25) attached to the double joint mechanism (21) is retracted. When support levers (6 and 20) are brought together to become substantially parallel to the strip of material being cut (30) the upper piston rod device (11) attached to the double joint mechanism (7) is fully retracted and the lower piston rod device (25) attached to the double joint mechanism (21) is extended. In this

position the upper and lower double joint mechanisms (7 and 21) extended approximately linearly with each other (see Figure 1). Furthermore Mckee teaches (Pg. 6, lines 2—27; Pg. 7, lines 1-6) the upper blade carrier (2) being able to be swung to a position outside of its normal shearing position to make it easier to replace the blades (4 and 5). As seen in Figure 1 each lower blade has a face that faces away from the other blade. Both of these faces have a completely exposed surface (top portion of each outward face extending above the lower blade holder 3). Furthermore, the lower blades can be considered independently attached to the lower blade holder as neither lower blade is attached to the other before being attached to the crank shear.

Mckee teaches all of the elements of the current invention as stated above except the exposed surfaces being entire faces of the lower blades, the upper blade recess being curved, and the projection being formed of a single piece with the lower blade holder. Mckee further fails to explicitly disclose the lower blades are attached independently.

Petros teaches (Figure 4) that it is old and well known to attach blades (64, 68, and anvils of 70 and 72) on a shearing device in a manner that completely exposes the entire face of the blades. Fries further teaches independently attaching each blade of both the upper and the lower sections of the device (see the independent bolt and nut connections for each blade as shown in Figure 4).

It would have been obvious to have modified Mckee to incorporate the teachings of Petros to expose entire surfaces of the lower blades and independently attach the lower blades to the lower blade holder because the connection types of Mckee and

Petros were art recognized equivalents at the time of the invention in shearing applications. One of ordinary skill in the art would have found it obvious to substitute the blade connections of Petros for the connections of Mckee. Furthermore, applicant has not disclosed that independently connecting each lower blade or having an entire face of each lower blade be exposed solves any stated problem or is for any particular purpose, and it appears that the shearing device would perform equally well with the blades being attached with any known connection means.

It would have been an obvious matter of design choice to modify Mckee to have the recess the inner blades be curved, since Applicant has not disclosed that having a curved recess in the upper blade holder solves any stated problem or is for any particular purpose and it appears that the shearing device would perform equally well with any shape recess provided the recess sufficiently supported the cutting blades.

Furthermore, it has been held the use of a one piece construction instead of structure formed of more than one piece would be merely an obvious engineering choice. Therefore it would have been an obvious matter of design choice to modify Mckee by having the projection be formed as one piece with the lower blade holder, since applicant has not disclosed that having the projection being formed on the lower blade holder solves any stated problem or is for any particular purpose and it appears the clamps would perform equally well with or without the projection being formed with the lower blade holder.

Claims 7 and 9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over the modified device of Mckee in view of Fries.

The modified device of Mckee teaches all of the elements of the current invention as stated above except the blade holders capable of being moved away from the material being cut to allow passage of the material.

Fries teaches (Col. 1, lines 1-9) a pair of shearing arms capable of being rotated out of position for the purpose of executing a variably adjustable number of miss-cuts between effective cutting operations.

It would have been obvious to have modified Mckee to incorporate the teachings of Fries to allow the cutters to be rotated about the eccentric shafts to non-cutting positions for the purpose of allowing material to be passed through the machine without being cut. This would allow the shearing machine to shear variable length work pieces without having to turn off the entire machine or take both of the cutting heads out of the machine.

#### **(10) Response to Argument**

Regarding Appellant's arguments in the final paragraphs of pages 8, 10, and 11, Appellant has not claimed loosening of only a single blade at a time or any specific type of fastening of the blades to the blade holders. Furthermore, claim 5 only states that each blade is "arranged on" bearing surfaces. The phrase "arranged on" does not require any specific type of connection, specifically the phrase does not require the blades be arranged only (last paragraph of page 9 and line 3 of page 11 of Appellant's arguments) on specific bearing surfaces. Appellant has not used the term "only" in the claims to describe the arrangement of the blades on the bearing surfaces.

Regarding Appellant's arguments (second to last paragraph of page 9; first paragraph of page 10) and the limitation "the lower pair of blades arranged on outer, oppositely directed bearing surfaces", McKee teaches that both the upper and lower blades are arranged on inner facing bearing surfaces (oppositely facing surfaces of c-shaped portions of the blades holders 2 and 3) and outer oppositely directed surfaces (oppositely facing surfaces of the screwed projection located between each pair of blades). The terms inner and outer are both relative. With regards to the lower blade holder (3) and the aforementioned limitation, the screwed in projection has outer surfaces that face the blades that face opposite each other. Figure 1 of McKee clearly shows the blades are arranged on the oppositely facing outer surfaces of the screwed in projection.

Regarding the first paragraph of page 12 of Appellant's arguments, the phrase "completely exposed surface facing away from the other blade" provides no additional structure to the instant invention. The term "exposed" relates one part to another in a device. In the instant claims appellant has failed to claim what the face of each blade is completely exposed relative to. Furthermore, the entire device and therefore every surface of the blade is completely exposed to air, the atmosphere, and the outer faces of the lower blade are completely exposed specifically to the inner bearing surfaces of the lower blade holder. Examiner further uses Petros to teach the "completely exposed" limitation since it is not expressly taught by McKee. Petros teaches independently attaching each blade (64, 68, and anvils of 70 and 72) via screw and nut connections (Figure 4) thereby negating the need large oppositely facing bearing surfaces to clamp



blades designed to shear a work piece. With the knowledge gleaned from Petros one of ordinary skill could insert screws in the projection of the lower blade holder to forcibly clamp each blade to the projection. Clamping the blades to the projection in this manner would require the gap for each blade to be larger than the thickness of the blade being clamped to allow for insertion and removal of the blade, thereby completely exposing the outer surfaces of the blades when the blades were fully clamped to the projection on the lower blade holder.

In response to Appellant's arguments against the references individually, specifically Petros found on page 12, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Petros teaches independently clamping blades to a shearing device via screw and nut means. McKee teaches clamping blades to a shearing device via oppositely facing clamping surfaces. Appellant has failed to argue against the two types of connections being equivalent and interchangeable. Furthermore, Appellant's argument that there is no incentive to switch to independently attaching each blade because of a more complicated construction is an opinion. To attach a blade to a blade holder, one of ordinary skill in the art could use many known options from welding, to riveting, to clamping, to screwing. Each is an old and well known type of connection and each has advantages and disadvantages one skilled in the art would know and use to decide which type of connection he or she should use to attach the blade. Appellant has stated in the arguments previously why one skilled in

the art would want to independently attach blades to a shearing device (last paragraph of page 8), and therefore there is an incentive to switch from a clamping to a screw type connection for the blades.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/EDWARD F LANDRUM/  
Examiner, Art Unit 3724  
3/4/2010

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